

Three Aberrations of *Precis octavia* Cramer (Lep.: Nymphalidae) from East Africa

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Since 1964 the writer has carried out investigations of the environmental variation in many of the African species of the butterfly genus *Precis*. This genus is remarkable for the variation of wing shape, and pigmentation shown by some of its members.

The investigations have especially focussed on two species, namely *P. octavia* Cramer and *P. archesia* Cramer. Both of these species exhibit extreme seasonal variation.

During the course of these studies many hundreds of insects have been raised under laboratory conditions.

Although the variation of pigmentation and wing pattern in *P. octavia* is probably the most extreme example in the Lepidoptera, this variation follows a set pattern (McLeod 1968). Any deviation from the normal range of variation can at once be seen.

The investigations still continue and quantities of living insect material are frequently received by air mail from several regions of Africa.

In 1972 a quantity of living *P. octavia* butterflies was received from Uganda. Amongst them was a very unusual aberration. This butterfly died soon after arrival, the possibility of breeding from it thus being lost.

This butterfly is described below together with a new but less striking aberration which appeared in breeding stock during 1966.

The third aberration was briefly mentioned in print some 52 years ago (Poulton 1923) following its exhibition at the Royal Entomological Society of London. While writing on this specialised topic I take the opportunity of naming this "important" aberration.

Precis octavia sesamus ab. **falke** ab. nov.

Allotype ♀: Collected at 6,500 ft. near Sipi on Mt. Elgon, Uganda by Rev. H. Falke, 9th December, 1972. The insect was flying with many other normal *P. octavia* f. *natalensis* Staudinger. Two f. *sesamus* Trimen were also seen. Eight *octavia*, including this aberration, were sent alive by air mail to the writer. The specimen was exhibited at the Royal Entomological Society of London on 21st February, 1973, and at the Annual Exhibition of the British Entomological and Natural History Society on 2nd November, 1974. In the McLeod collection.

This aberration varies from the typical form *natalensis* in that the black marginal band of the outer border is wider and extends inwards towards the wing base. This is most extreme on the hindwing, both upperside and underside, where the black marginal band actually joins the row of post-discal spots. On the forewing this only occurs in cellule 1b.

The two rows of white lunules enclosed by the black

marginal band are also greatly enlarged, especially the proximal row which are wedge-shaped.

On the underside the black area at the wing base of the hindwing is extended and completely obliterates the four cream/pink circular areas normally enclosed by it.

The black bar which traverses the distal end of the cell of the forewing joins on to the black area which runs from the wing base along the inner margin. This character may or may not be typical of *ab. falke*. It is also seen in *f. transiens* Wichgraf but *ab. falke* is somewhat different in lacking the dark brown areas which occur distal to this black bar.

Precis octavia sesamus ab. langata ab. nov.

Holotype ♂: Bred by the writer ex-Karen, Nairobi, Kenya, December 1966, together with many other *f. natalensis*. In the McLeod collection.

This aberration differs from the typical *f. natalensis* in that the post-discal spots in cellules 5 and 6 of the hindwing join together to form a very short bar. This character is seen equally on both upperside and underside. It appears to result from the termination midway along its length of vein 6.

Precis octavia sesamus ab. albonotatus ab. nov.

Holotype ♂: Collected at 6,000 ft. near Karen, Nairobi, Kenya, by Dr. V. G. L. van Someren in June 1919. The specimen was presented to Prof. E. B. Poulton and exhibited at the Royal Entomological Society of London on 12th October, 1923 (Poulton 1923). In the collection of the Hope Department of Entomology, University of Oxford.

As in form *sesamus* Trimen, except that the circular areas distal to the post-discal spots of both fore and hindwings are white instead of red. The specimen is rather badly damaged on both hindwings.

Although recorded in the southern race, *ab. albonotatus* is undoubtedly a result of the same genotype which produced the albinism of *ab. kualii* Heslop (Heslop 1959). *Ab. kualii* has been recorded from the north-western race (Heslop 1956). It was collected at New Kwale, Nigeria on 31st August, 1941 and is characterised by the orange/red pigment of *f. octavia* being replaced by white. This specimen is now in the City Museum, Bristol. This example of a single aberrant character appearing in the two extreme seasonal forms of a species is perhaps unique and worthy of note.

A rare aberration of *f. natalensis* in which white patches occur on the hindwings was reported from Rhodesia (Pinhey 1949). Dr. Pinhey later stated that he was unaware of the whereabouts of this specimen and that it was not in the collections of the National Museum, Bulawayo or the Department of Agriculture, Salisbury (Pinhey 1970). The writer has examined many collections in east and southern Africa and in November 1974 located a specimen in the Transvaal Museum, Pretoria, Pretoria, South Africa, which may be the one mentioned by Pinhey. However, in the writer's opinion it is not a genetical

Plate II



Precis octavia Cramer

Top: ab. **falke**. Living specimen at rest.

Bottom: typical f. *natalensis* collected at the same locality on the same date.

Figures approximately $\times 1\frac{1}{2}$ natural size.